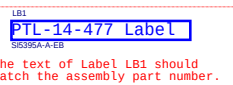




To ascend from a block schematic, right click and select "Previous View".

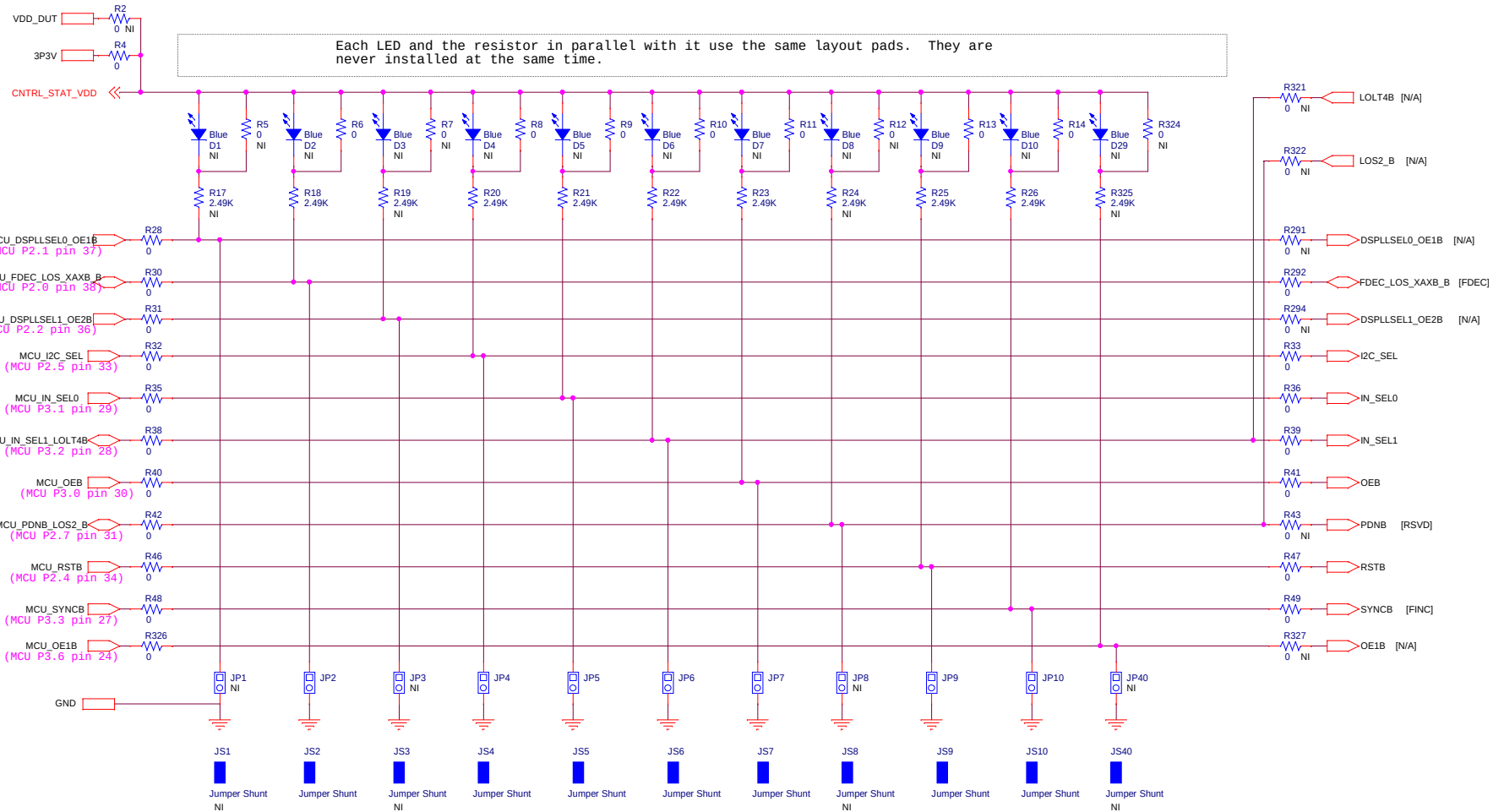


REVISION CONTROL

- Rev 1.0 - Nov 15, 2017, Initial Board Release
Started with a copy of the Si5345-E-EB
schematic. Replaced DUT, PCB, label and
Board ID resistors. tturner
- Rev 1.1 - May 29, 2018, Changed U5 from PCA9517D to
PCA9517AD,118 (this was needed to make sure the NXP
part is ordered instead of the TI version)

		400 W Cesar Chavez Austin, TX 78701	
Title			
SI5345-EB_TOP_REVISION			
Size	Document Number		Rev
B	SI5395A-A-EB		1.1
Date:	Tuesday, May 29, 2018		Sheet 2 of 44

CONTROL PINS CONNECTIONS



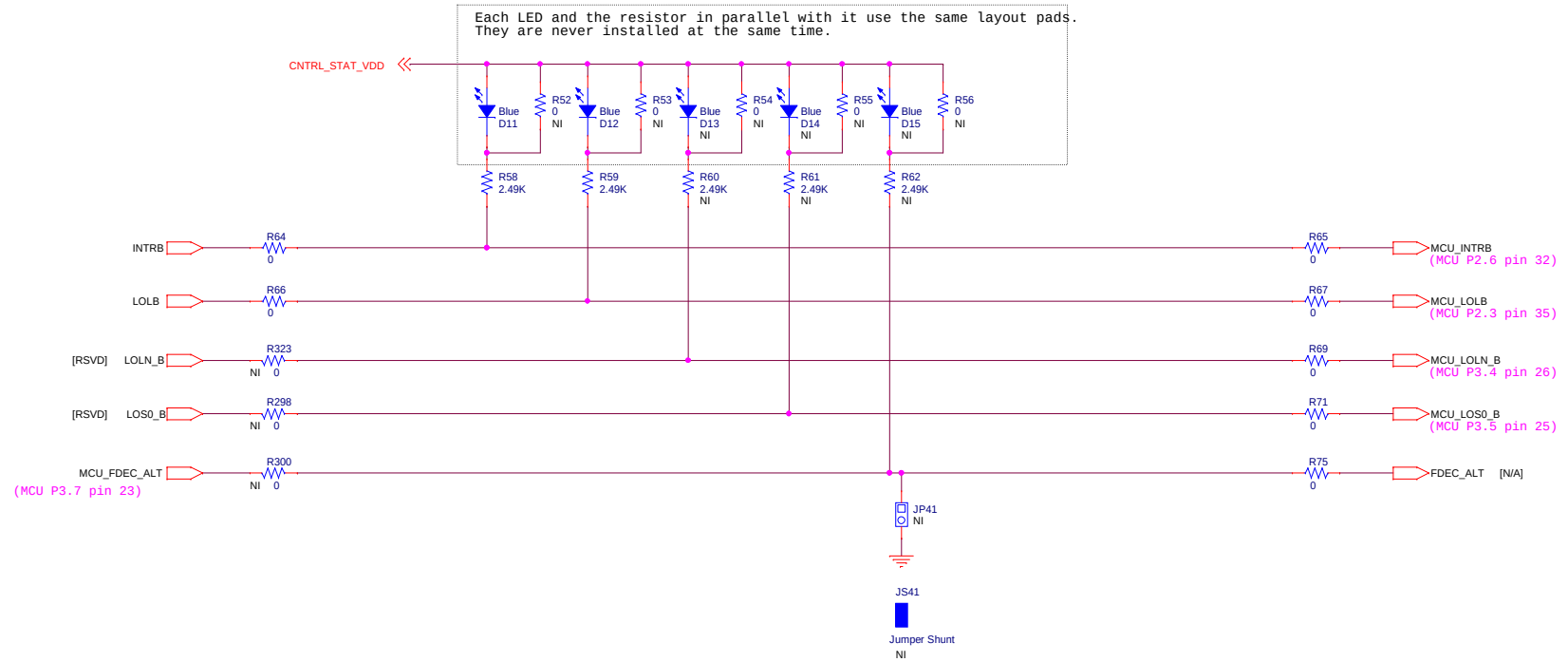
Note:

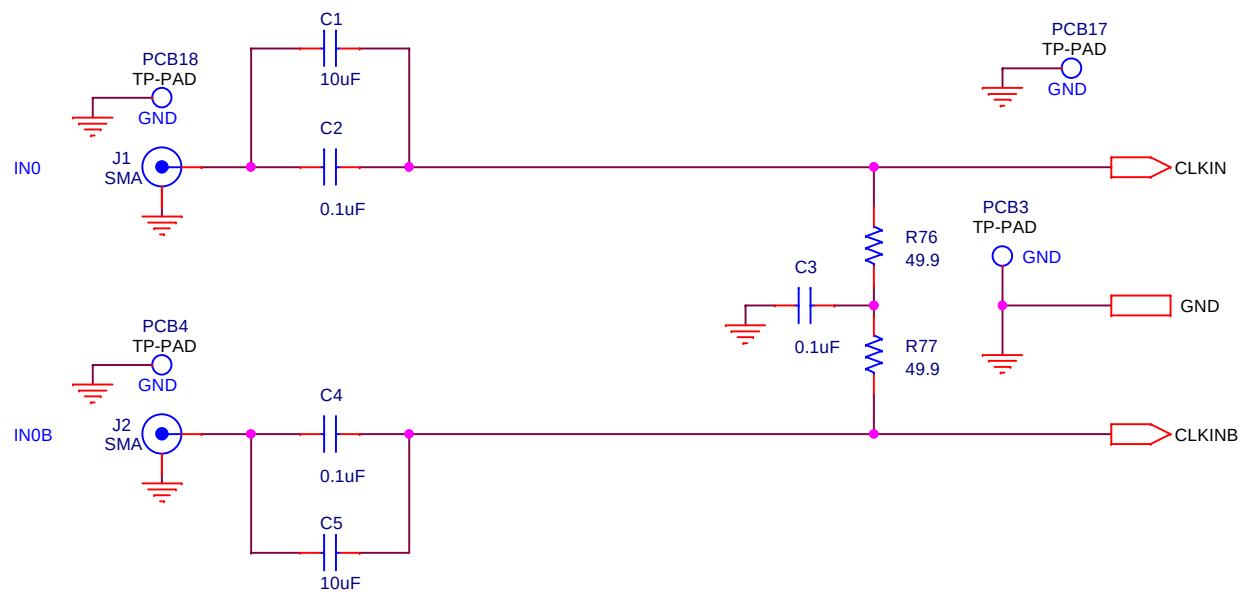
1. If the net name differs from the DUT pin name, the corresponding DUT pin name is enclosed in brackets. [DUT Pin Name]

2. "N/A" in brackets indicates that the function is not used for the DUT. [N/A]

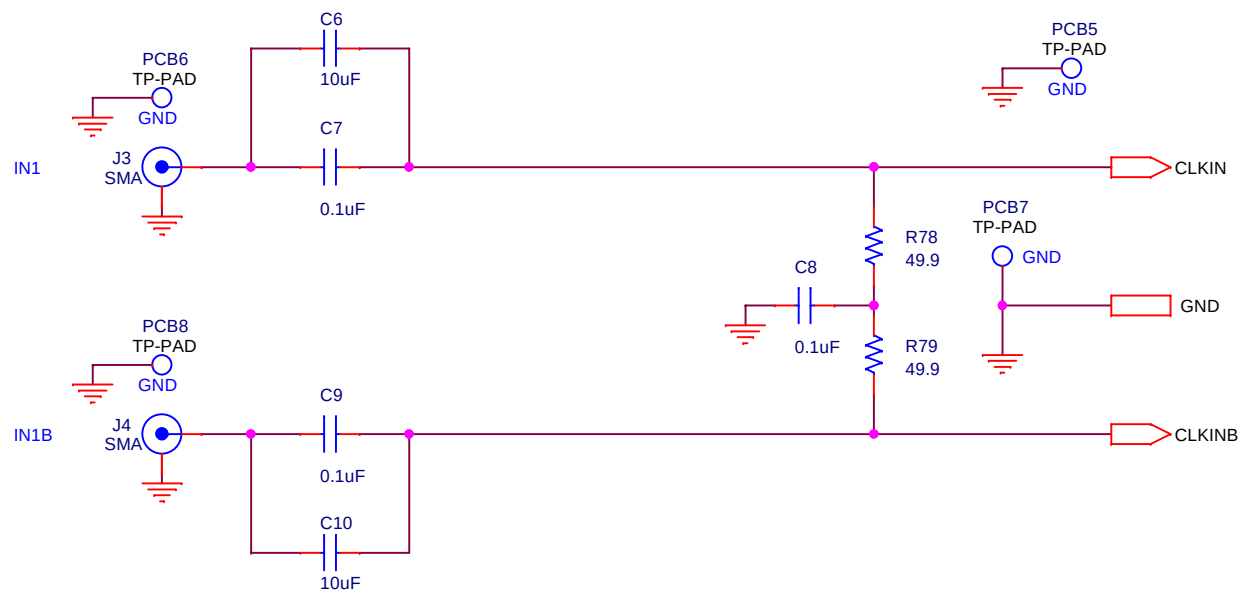
400 W Cesar Chavez Austin, TX 78701		
Title: CONTROL PINS_P1		
Size B	Document Number SI5395A-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018	Sheet 3 of 44	

CONTROL PINS CONNECTIONS





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Title DIFF_INPUT_CLK		
Size A	Document Number SI5395A-A-EB	Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 5 of 44



400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_INPUT_CLK

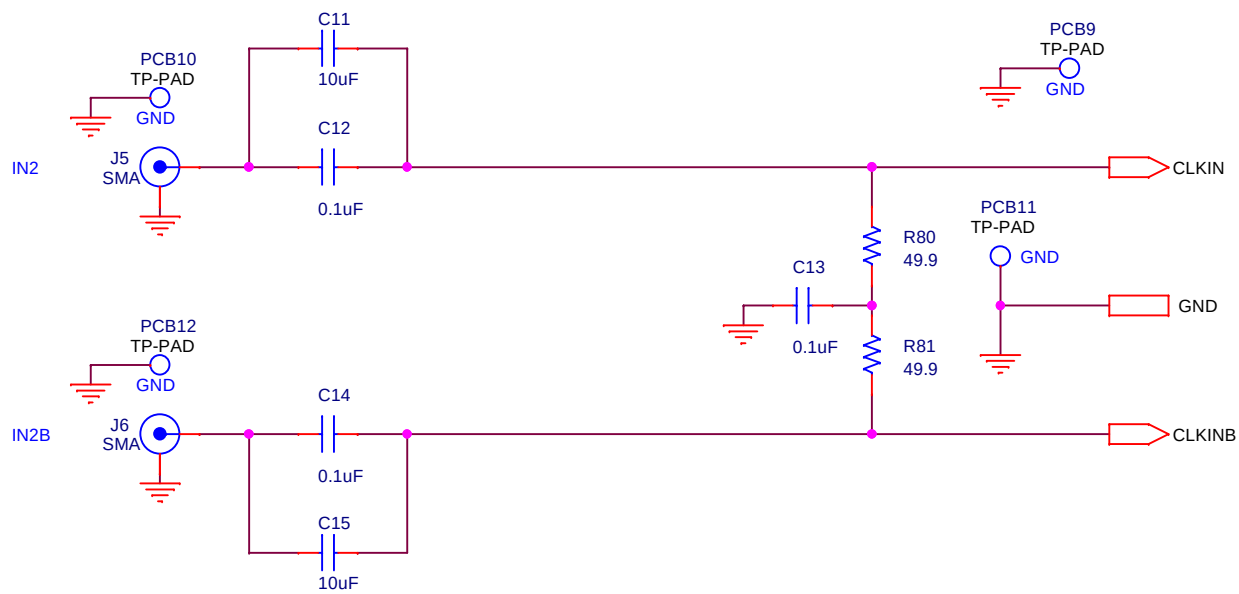
Size
A

Document Number
SI5395A-A-EB

Rev
1.1

Date: Tuesday, May 29, 2018

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400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_INPUT_CLK

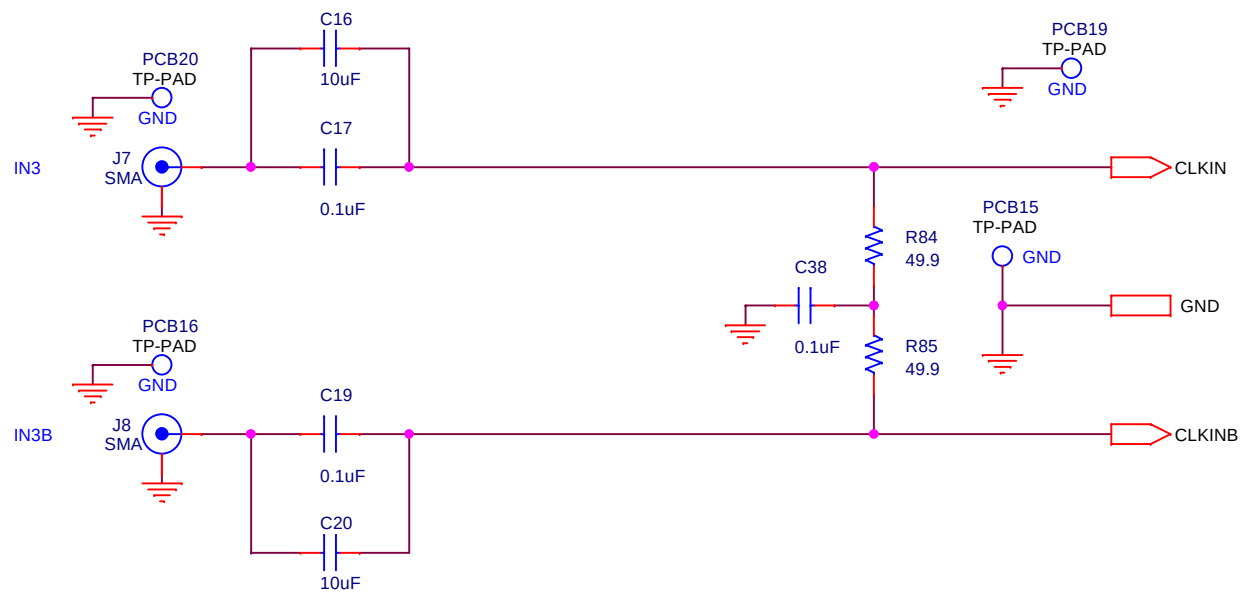
Size
A

Document Number
SI5395A-A-EB

Rev
1.1

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400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_INPUT_CLK

Size
A

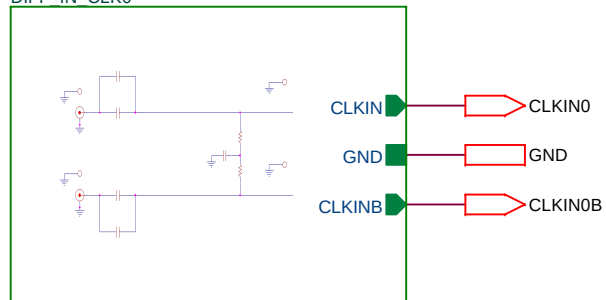
Document Number
SI5395A-A-EB

Rev
1.1

Date: Tuesday, May 29, 2018

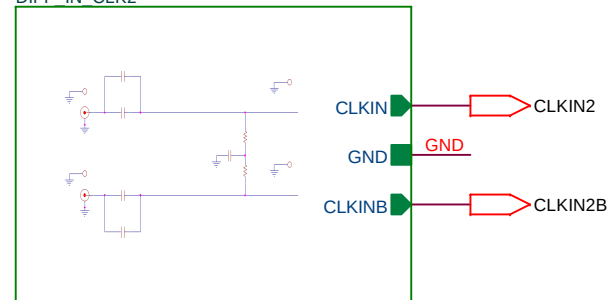
Sheet 8 of 44

DIFF IN CLK0



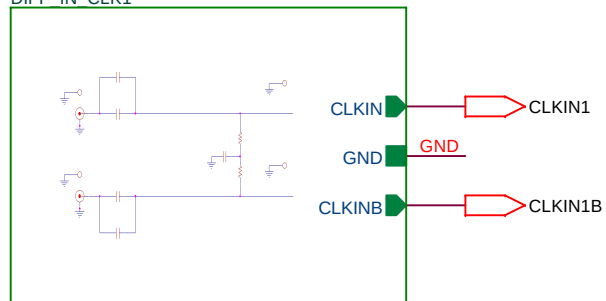
DIFF_INPUT_CLK

DIFF IN CLK2



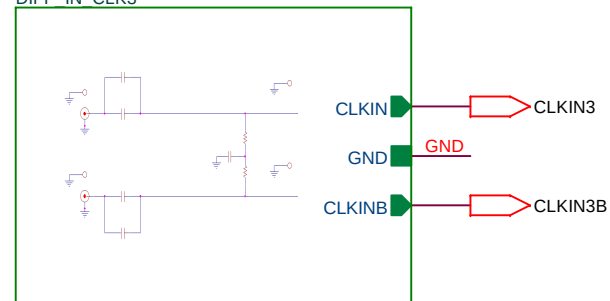
DIFF_INPUT_CLK

DIFF IN CLK1

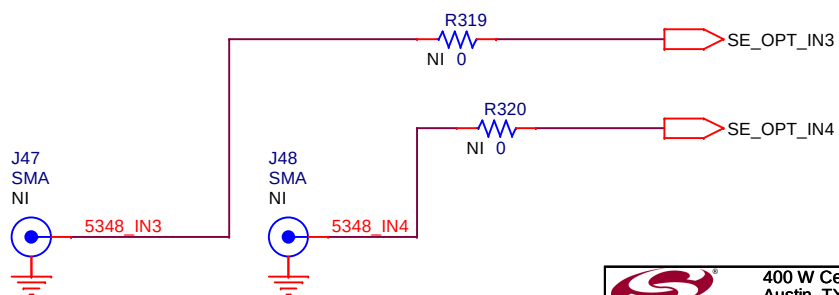


DIFF_INPUT_CLK

DIFF IN CLK3



DIFF_INPUT_CLK



Single-ended clocks only.



400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_INPUT_CLOCKS_4

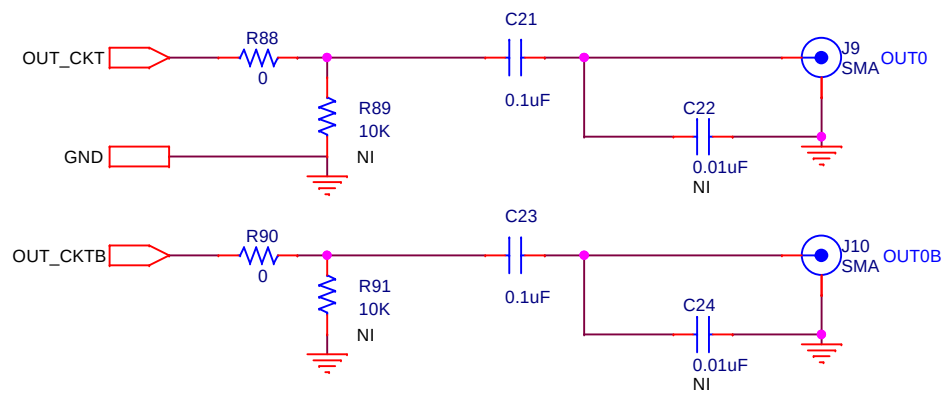
Size
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Document Number
SI5395A-A-EB

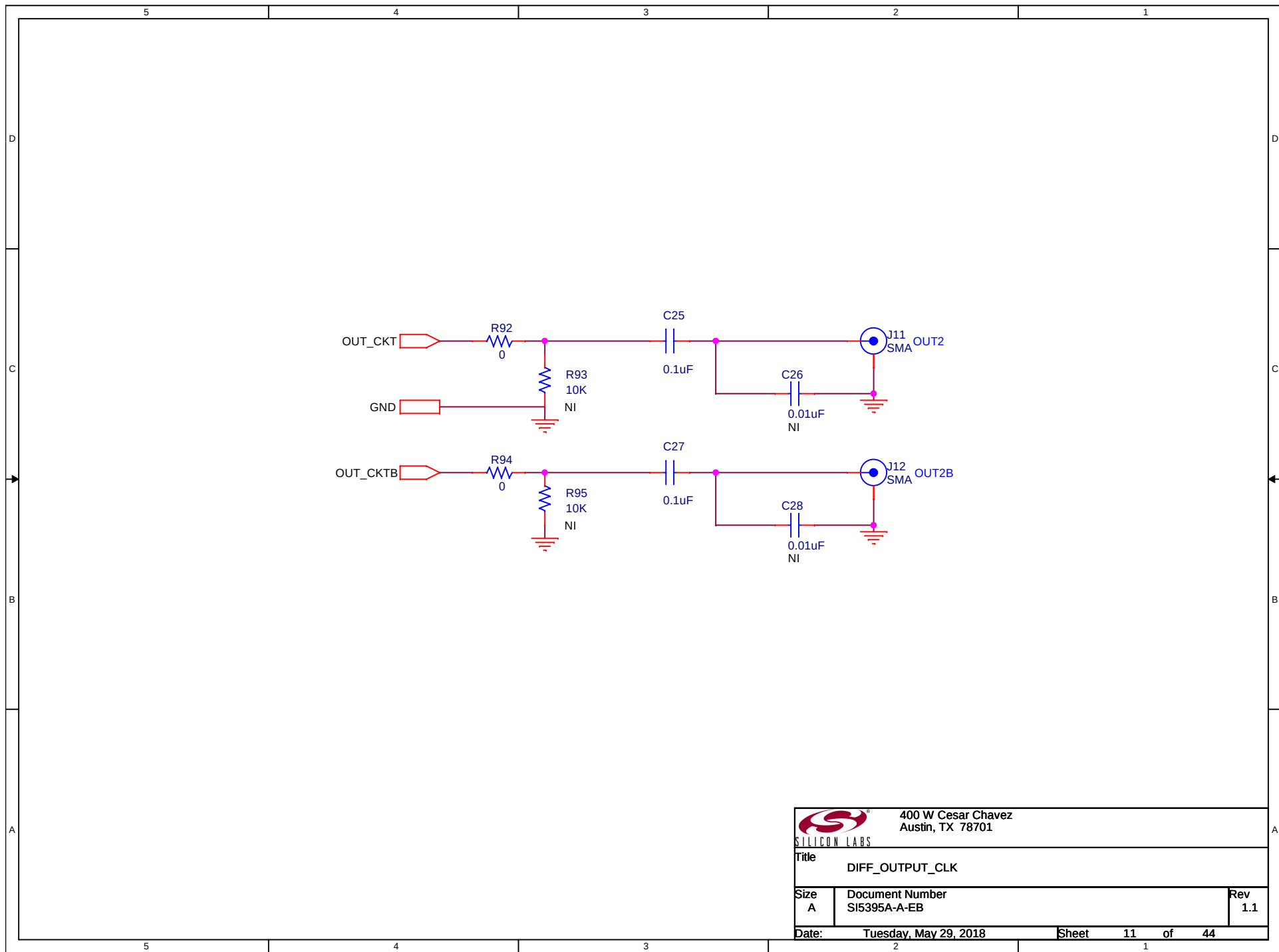
Rev
1.1

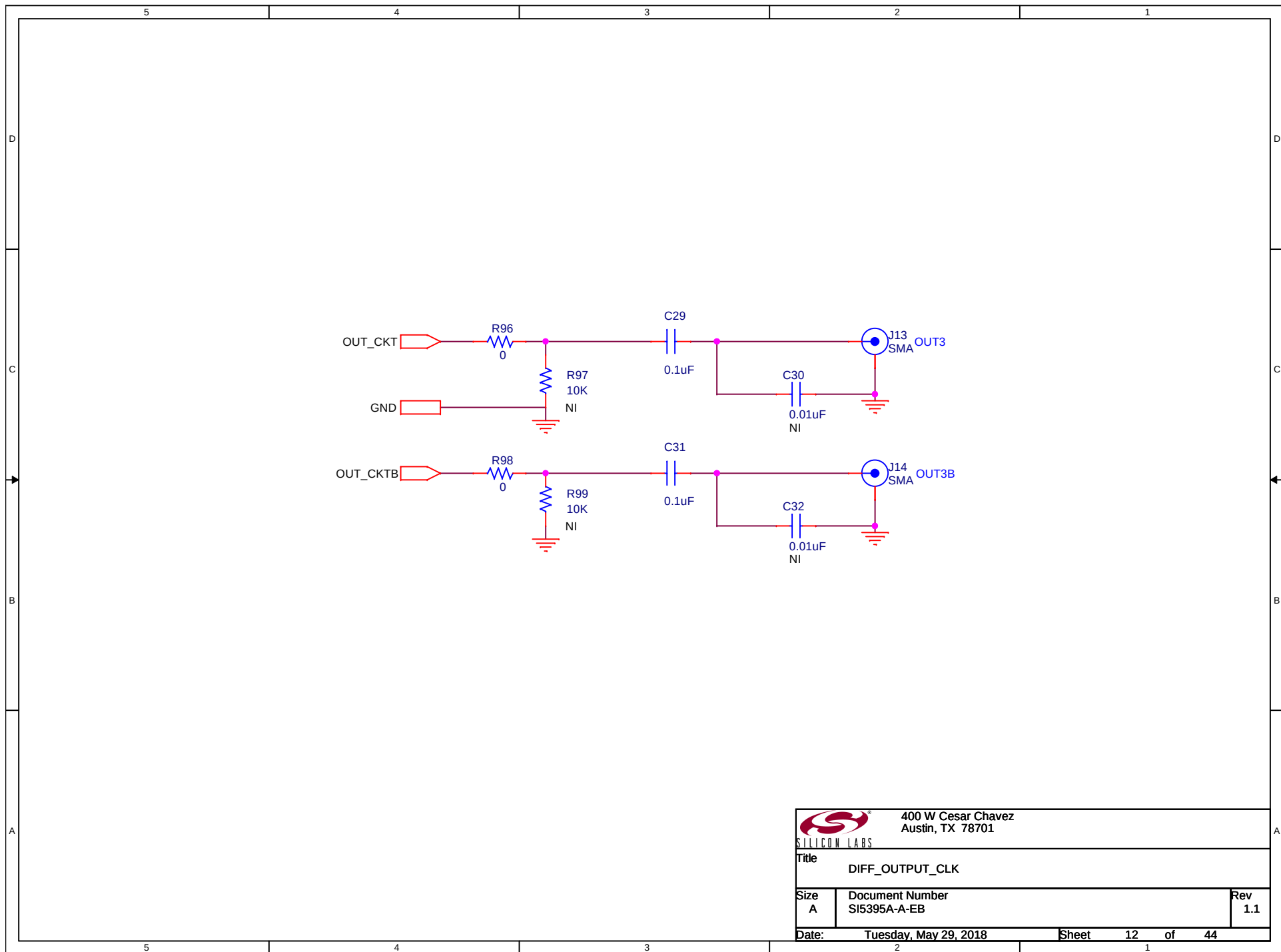
Date: Tuesday, May 29, 2018

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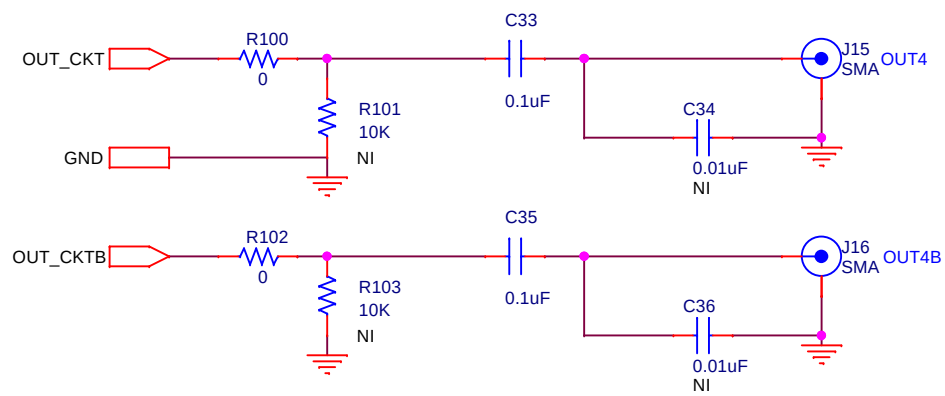


 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395A-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018	Sheet 10	of 44

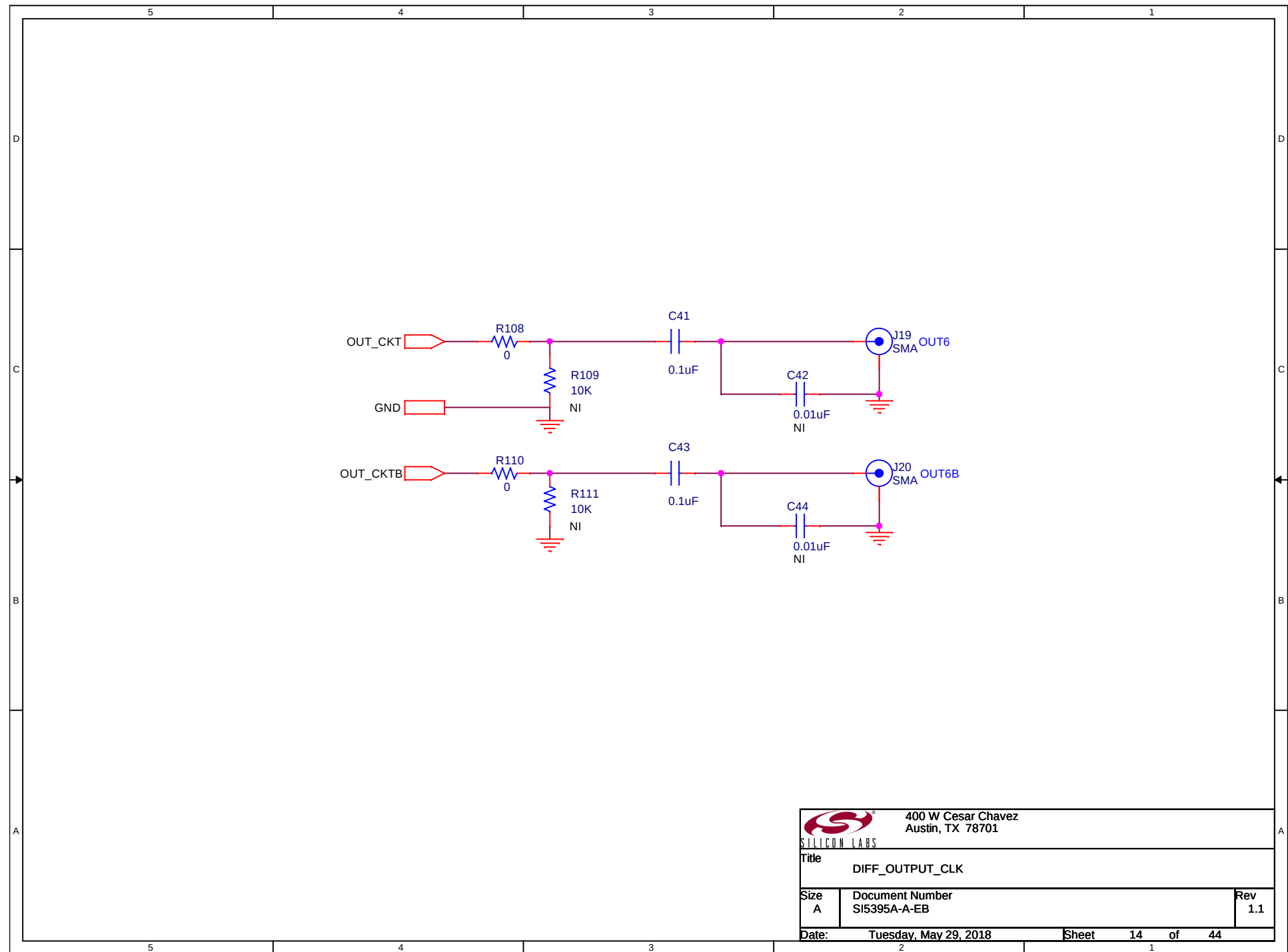




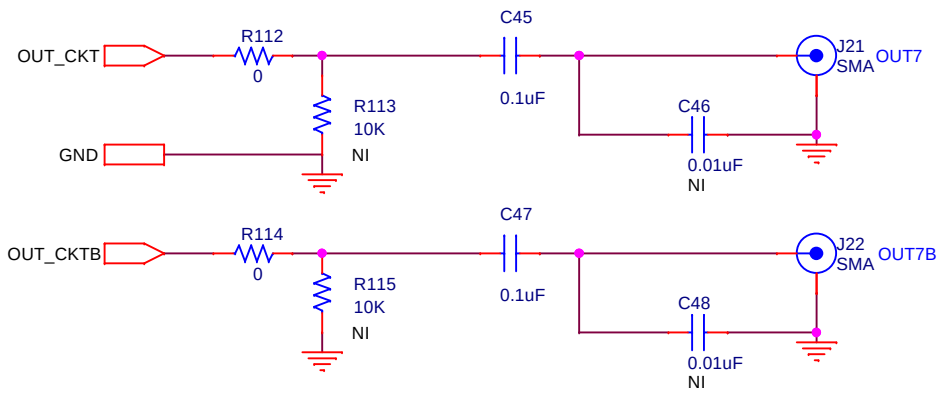
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Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395A-A-EB	Rev 1.1
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 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395A-A-EB	Rev 1.1
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Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395A-A-EB	Rev 1.1
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400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_OUTPUT_CLK

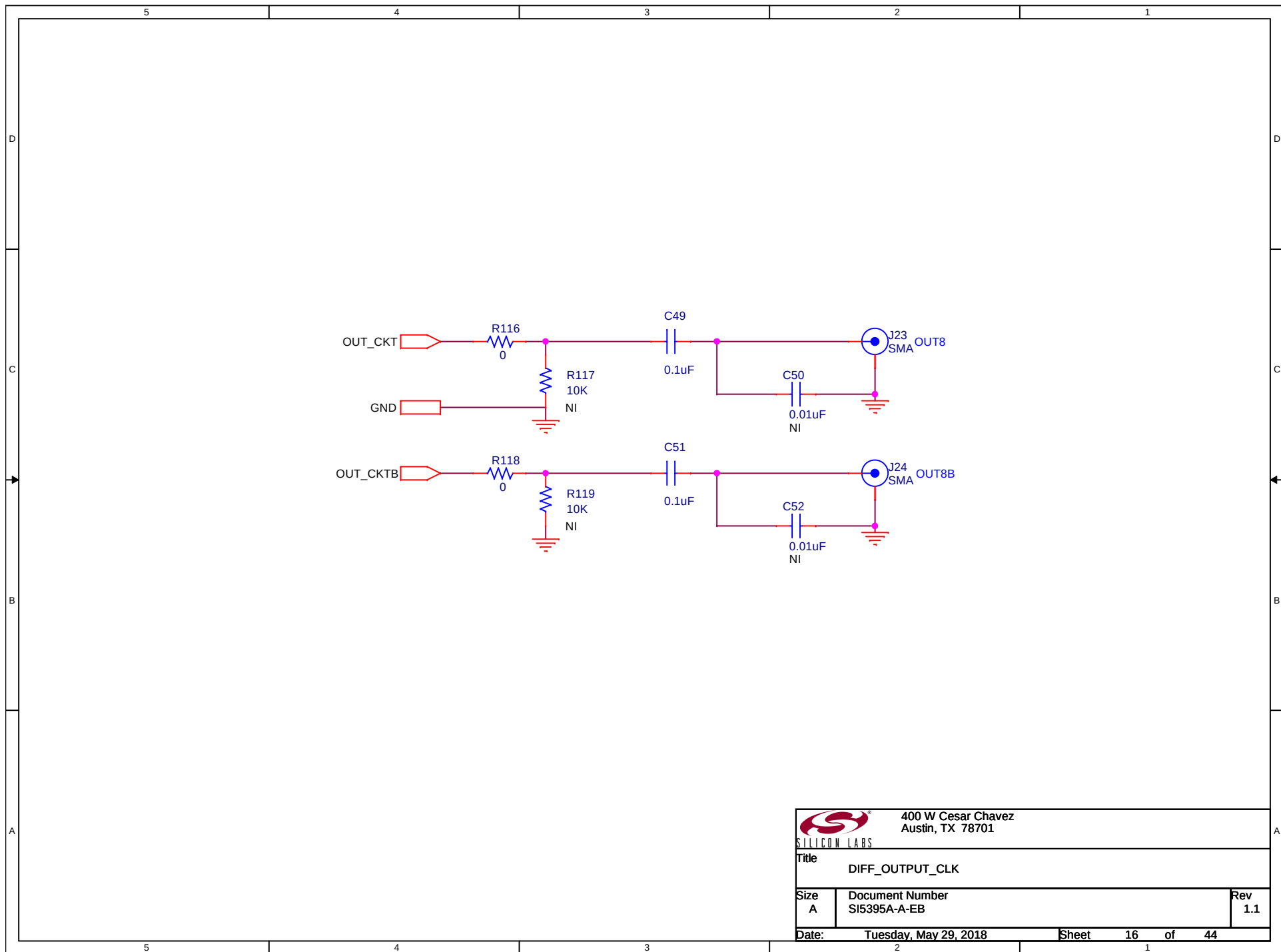
Size
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Document Number
SI5395A-A-EB

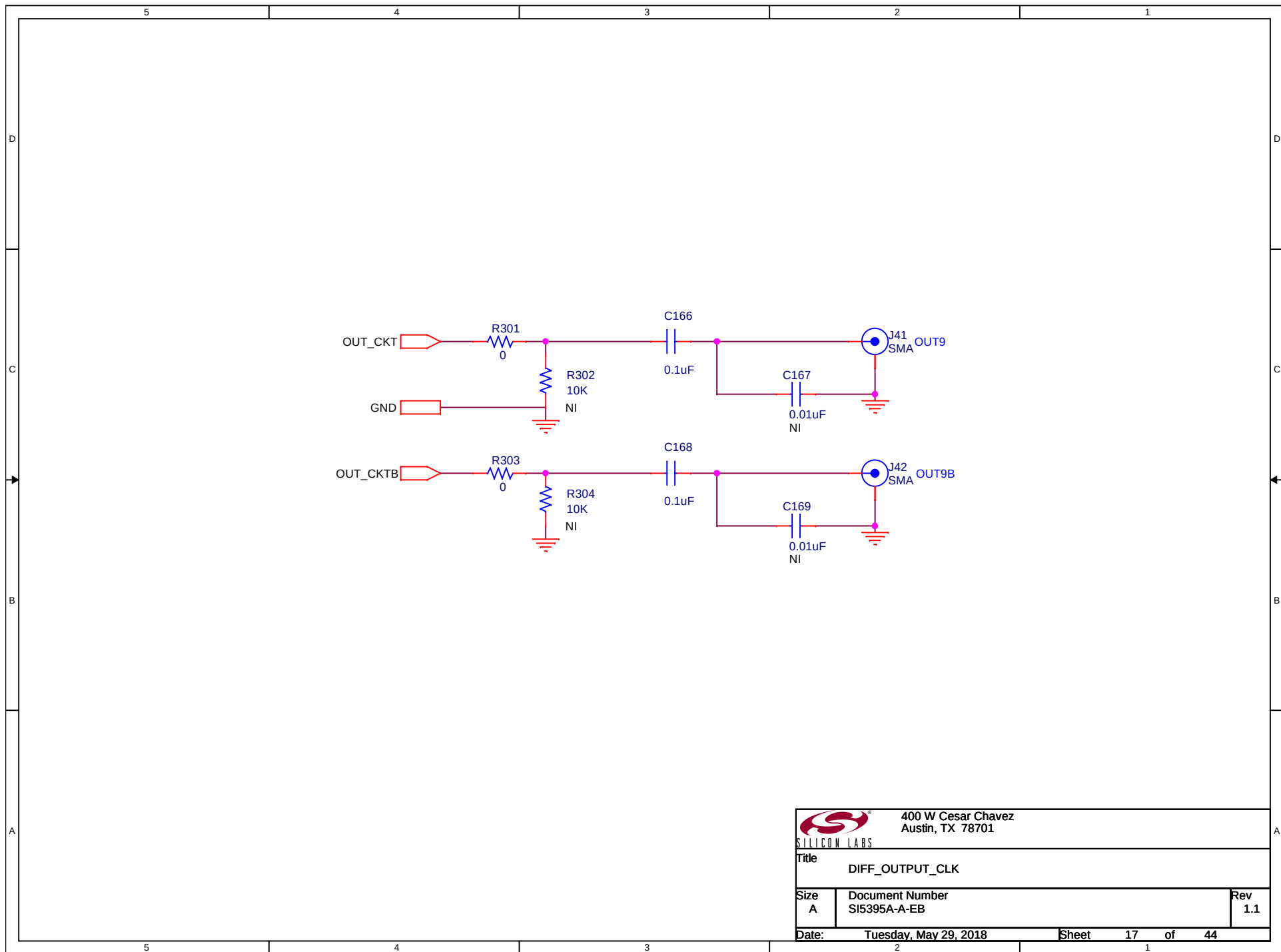
Rev
1.1

Date: Tuesday, May 29, 2018

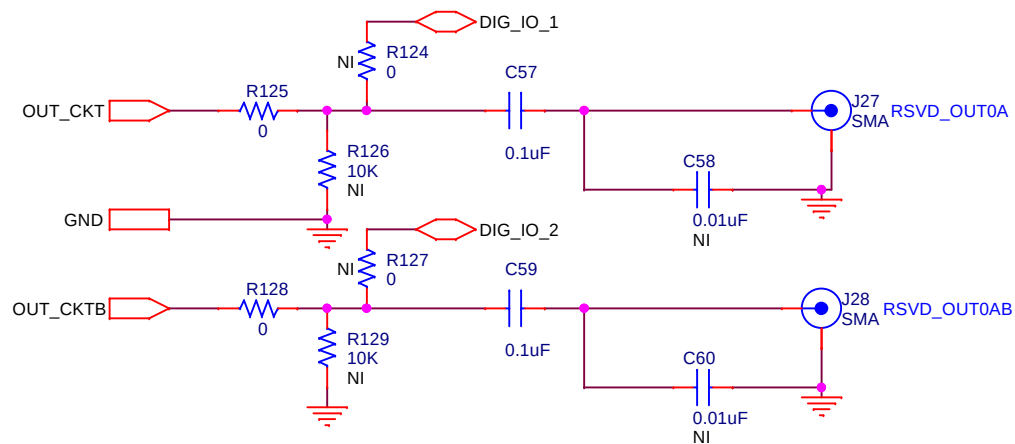
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 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395A-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018		
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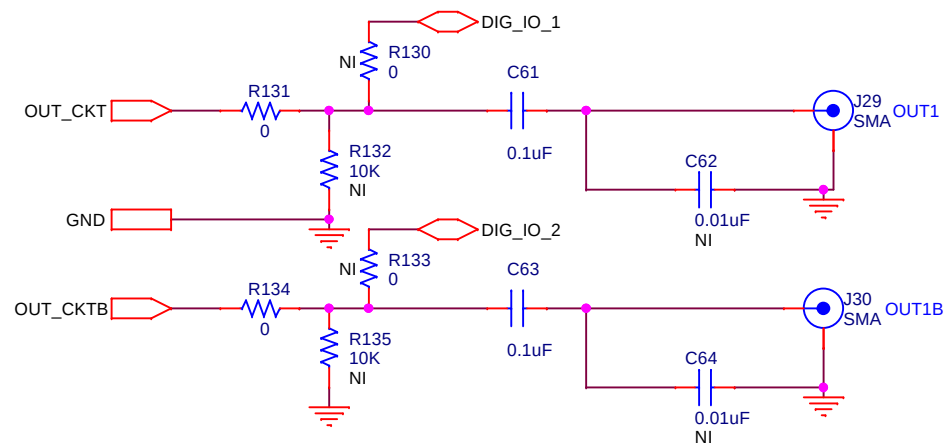


DIFF_OUTPUT_CLK_DIG_IO



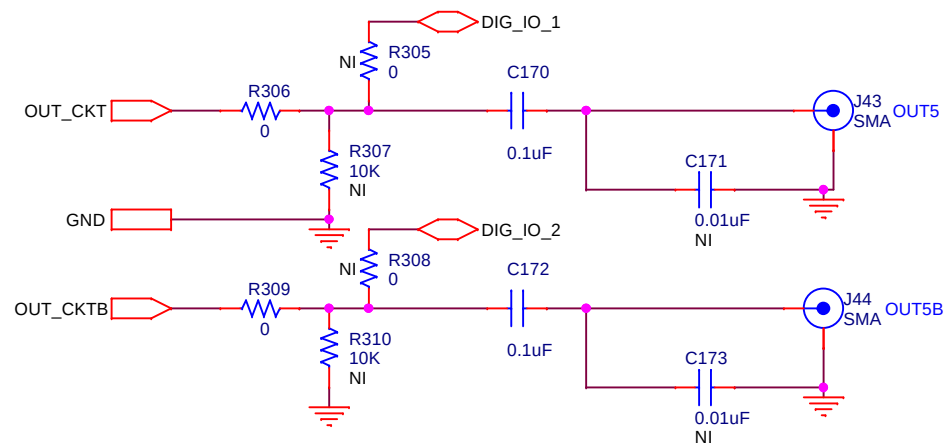
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Title DIFF_OUTPUT_CLK_DIG_IO		
Size A	Document Number SI5395A-A-EB	Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 18 of 44

DIFF_OUTPUT_CLK_DIG_IO



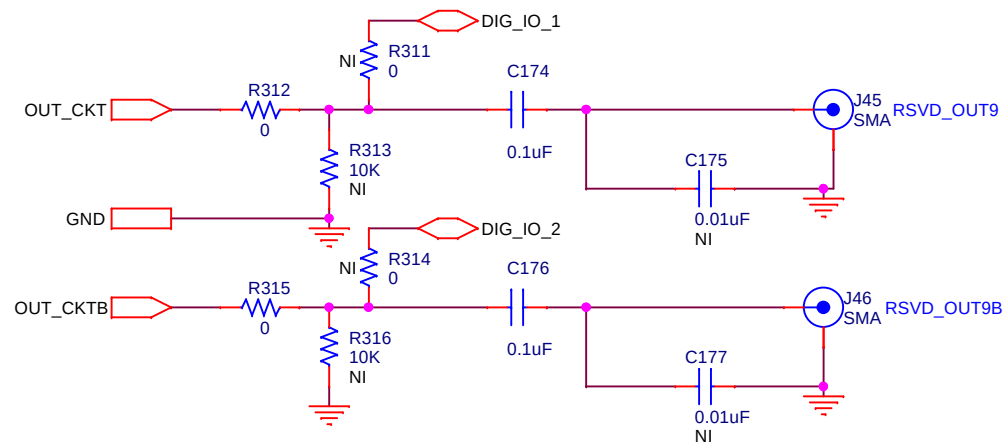
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Title DIFF_OUTPUT_CLK_DIG_IO		
Size A	Document Number SI5395A-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018	Sheet 19	of 44

DIFF_OUTPUT_CLK_DIG_IO



 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK_DIG_IO		
Size A	Document Number SI5395A-A-EB	Rev 1.1
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DIFF_OUTPUT_CLK_DIG_IO



400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_OUTPUT_CLK_DIG_IO

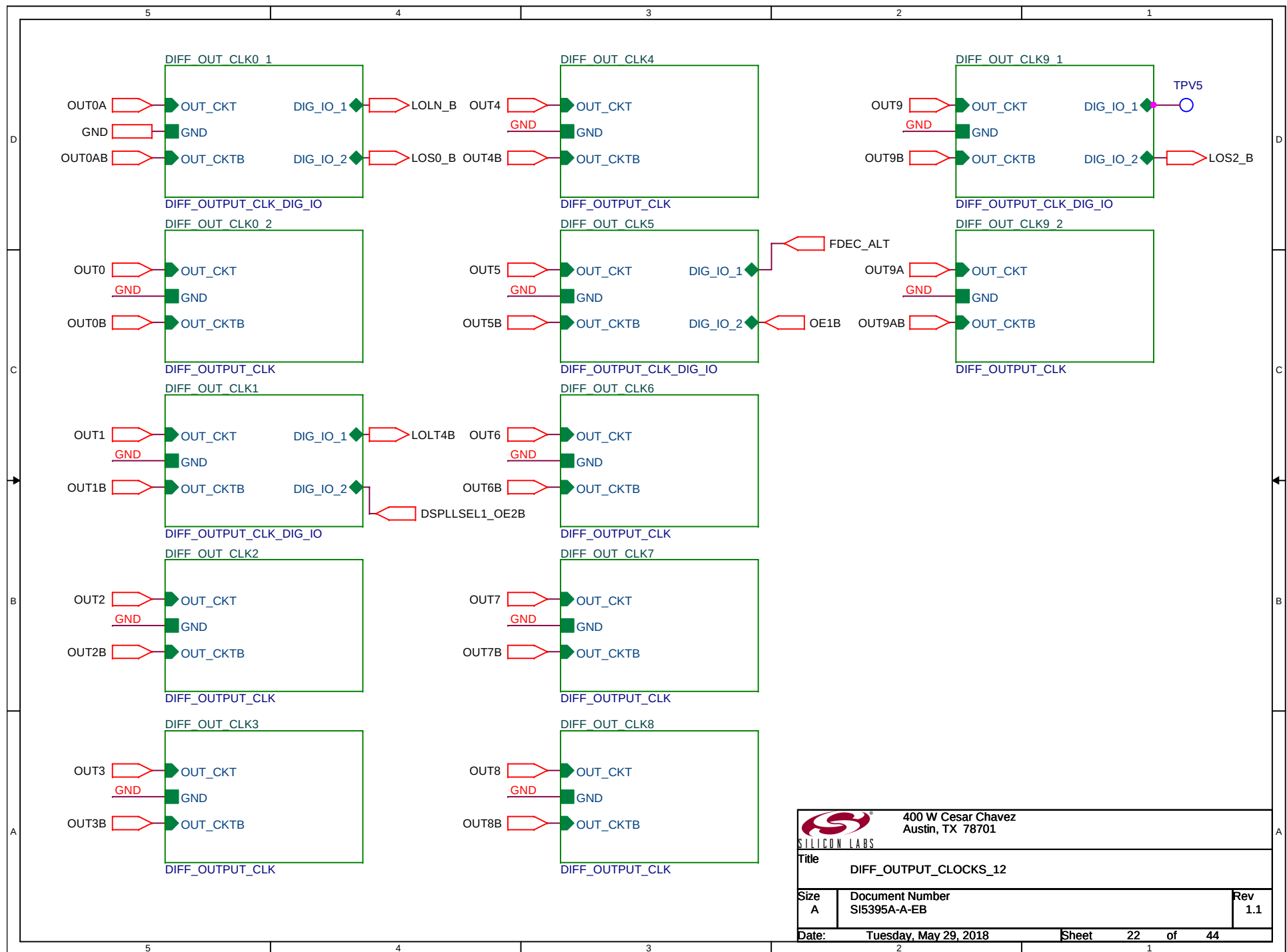
Size

Document Number
SI5395A-A-EB

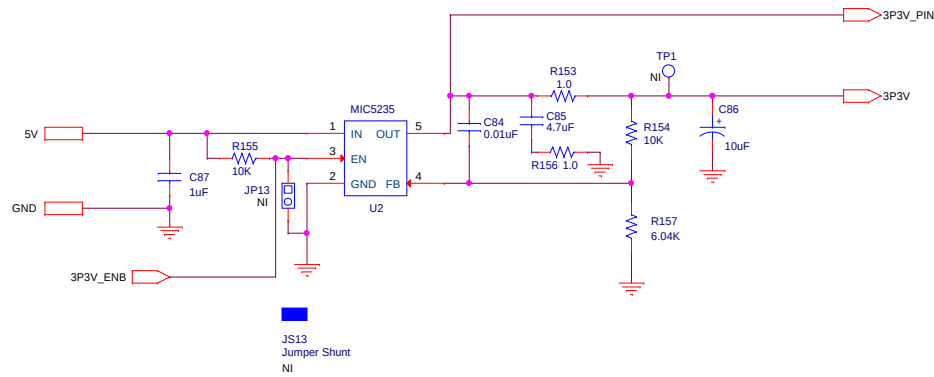
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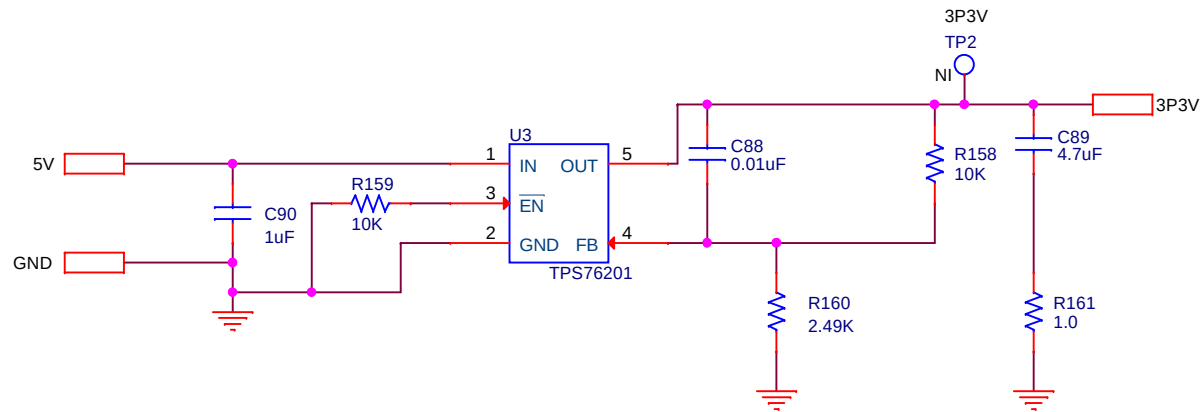
Fixed 3.3V 150 mA Voltage Regulator



3P3V_DUT (In Schematic)
VDDA DUT (Board Silkscreen)

		400 W Cesar Chavez Austin, TX 78701	
Title		VDD_REG_MIC5235	
Size	Document Number	Rev	
B	SI5395A-A-EB	1.1	
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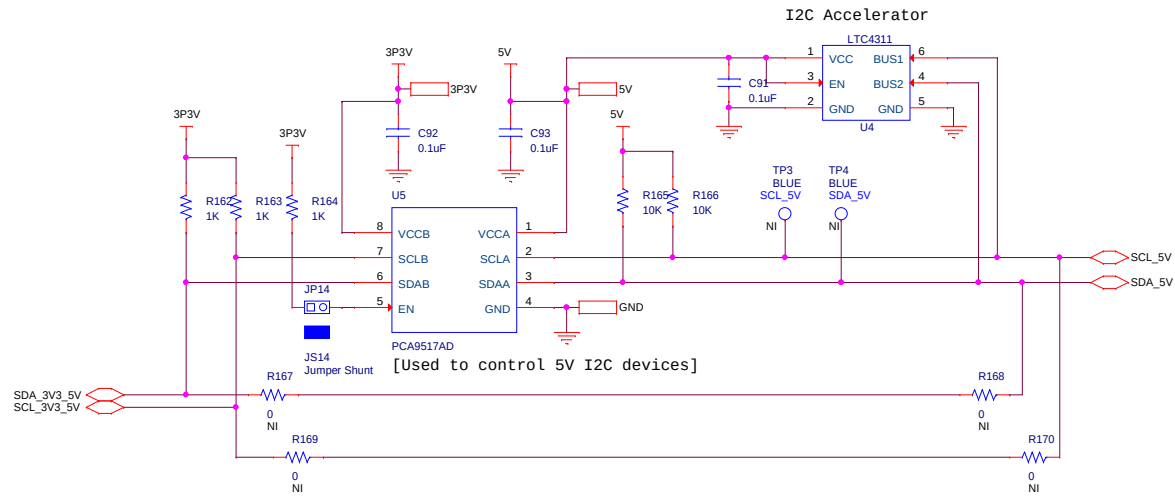
Fixed 3.3V 100 mA Voltage Regulator (Enabled, no current measurement supported.)



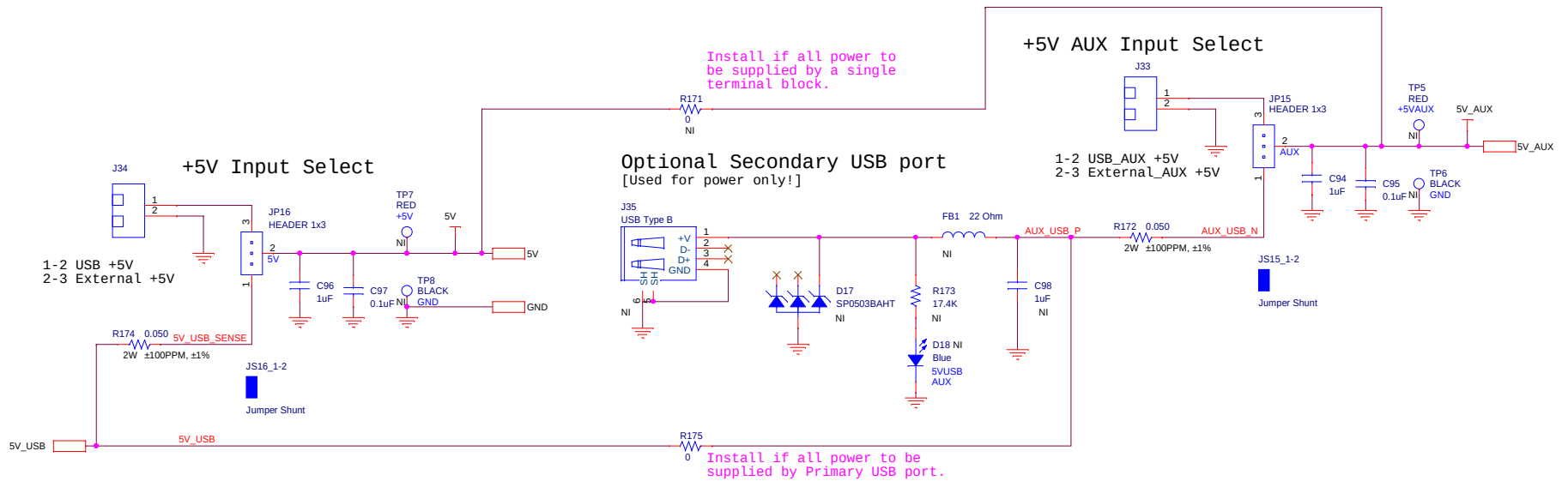
3P3V (In Schematic)
3P3V (Board Silkscreen)

		400 W Cesar Chavez Austin, TX 78701	
Title			
FIXED_3V3_REG_TPS76201_EN_NO_IM			
Size A	Document Number SI5395A-A-EB		Rev 1.1
		<Variant Name>	
Date:	Tuesday, May 29, 2018	Sheet	24 of 44

I2C LEVEL TRANSLATORS



MAIN POWER INPUT SELECTS EXTERNAL OR USB

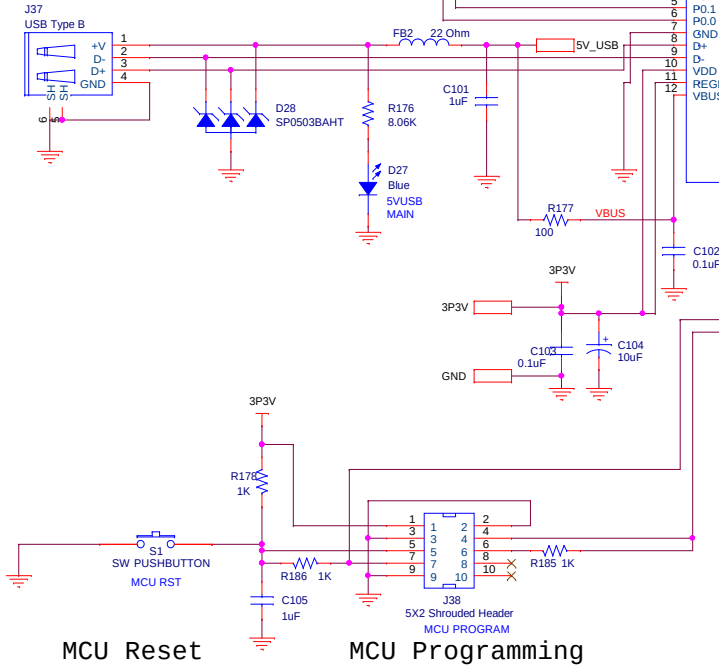
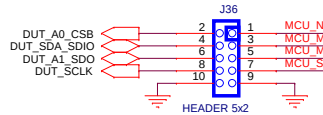


 400 W Cesar Chavez Austin, TX 78701	
Title	
MAIN_POWER_CONNECTIONS	
Size	Document Number
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Rev	1.1

8051 MCU

Jumper Shunts

- JS36_1-2
- JS36_3-4
- JS36_5-6
- JS36_7-8
- JS36_9-10



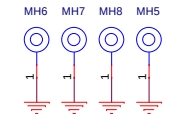
MCU Reset

MCU Programming

Mounting Holes, Screws, and Standoffs

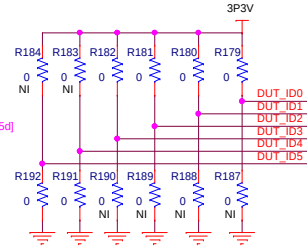


Mounting Holes



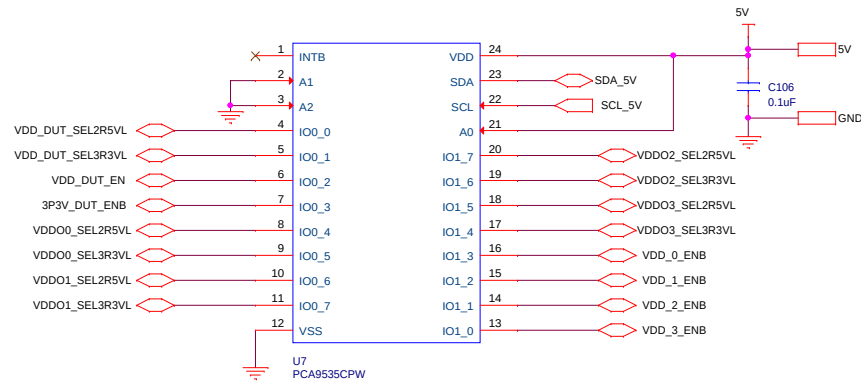
Removed "toe tag" MH9.

DUT_ID[5:0] = 001111 [15d]

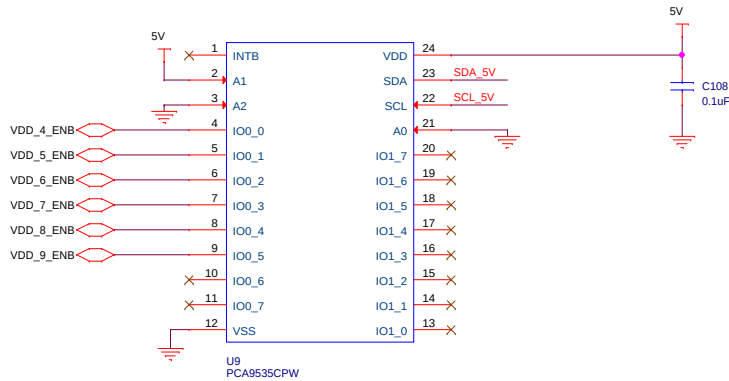


400 W Cesar Chavez Austin, TX 78701			
Title MCU			
Size B	Document Number SI5395A-A-EB		Rev 1.1
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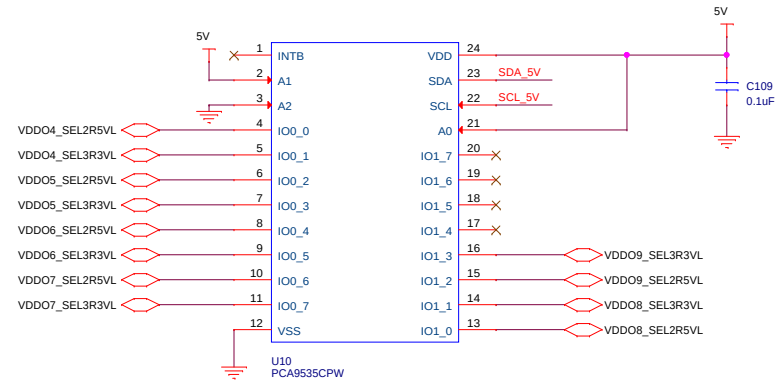
PERIPHERALS



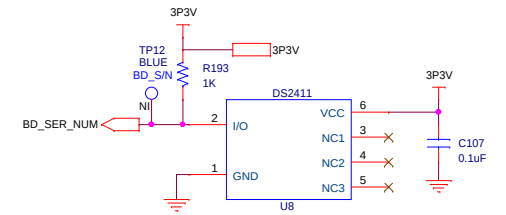
I2C VDD ENABLES/SELECTS FOR REGULATORS
I2C address: 0100001



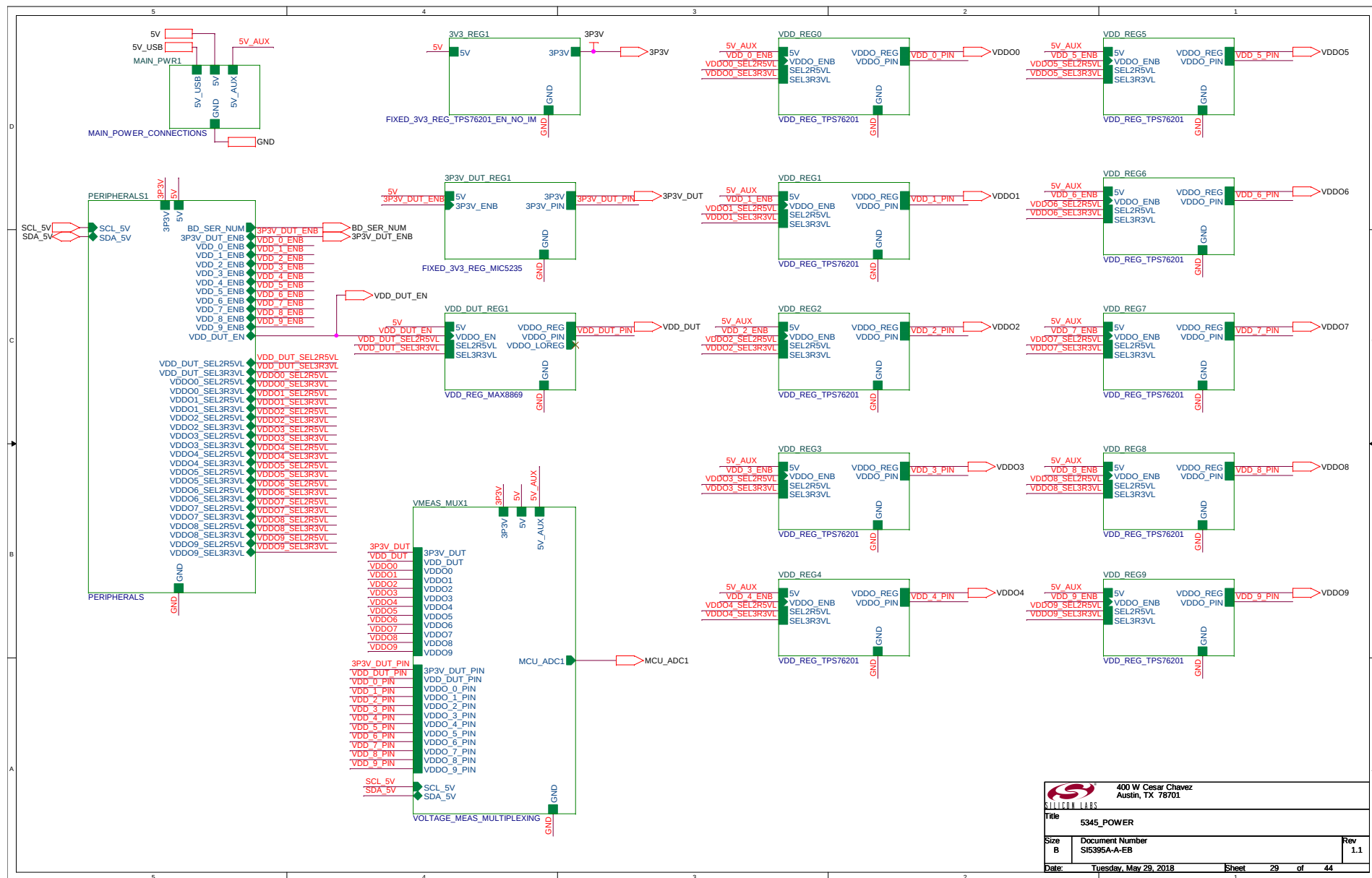
I2C VDD ENABLES/SELECTS FOR REGULATORS
I2C address: 0100010



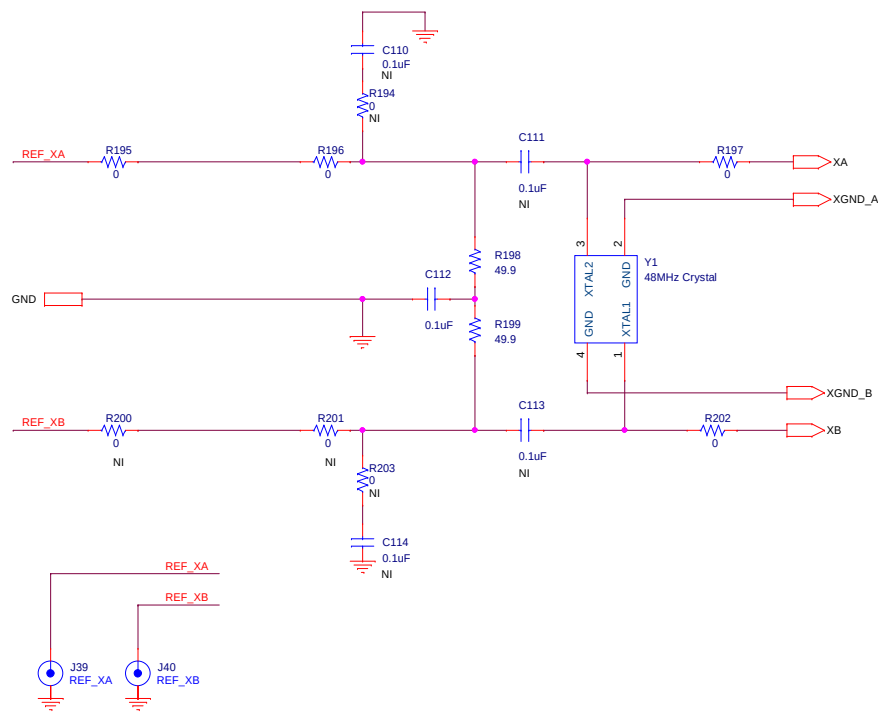
I2C VDD ENABLES/SELECTS FOR REGULATORS
I2C address: 0100011



Board Serial Number

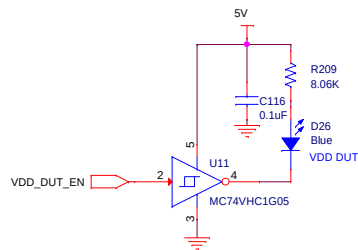
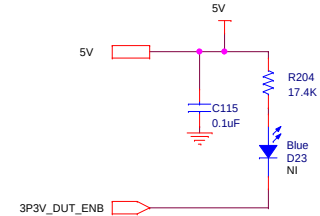
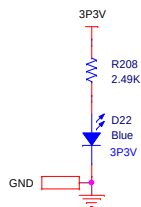
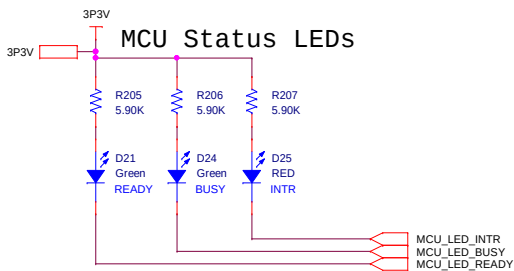


REFERENCE INPUT CONNECTIONS



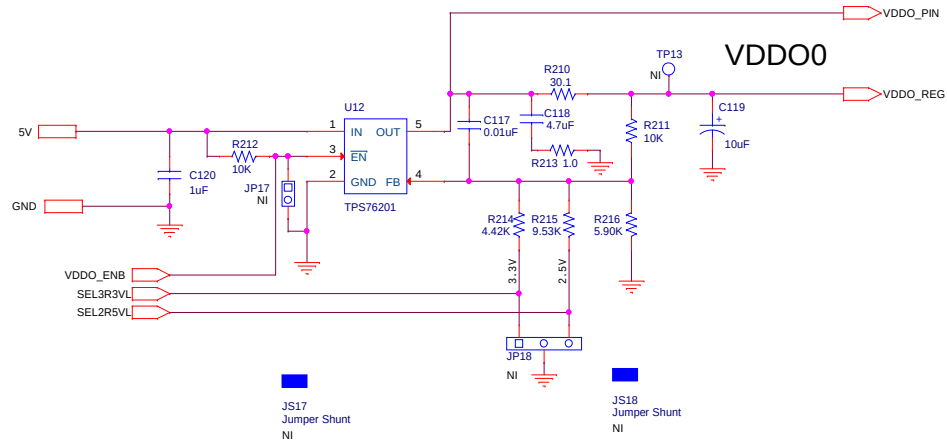
 400 W Cesar Chavez Austin, TX 78701	
Title REFERENCE	
Size B	Document Number SI5395A-A-EB
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LEDS - SUPPLIES & STATUS



 400 W Cesar Chavez Austin, TX 78701			
Title STATUS_MAIN_SUPPLY_LEDS			
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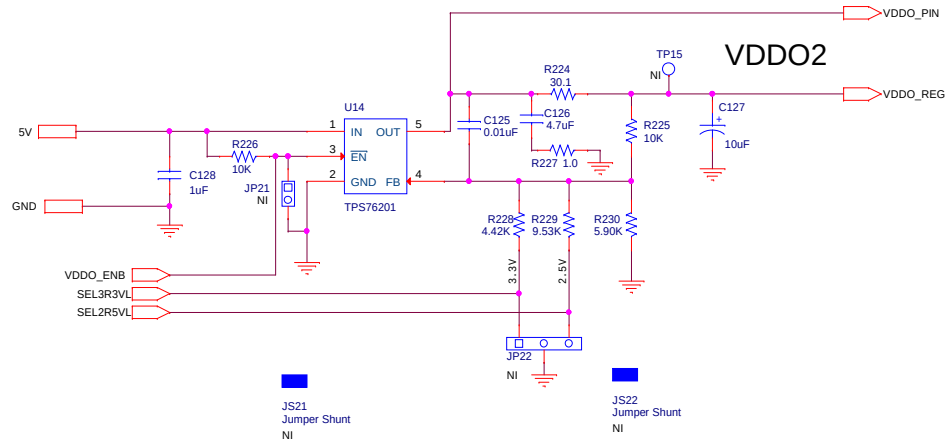
100 mA Adjustable Voltage Regulator



 400 W Cesar Chavez Austin, TX 78701		
Title VDD_REG_TPS76201		
Size B	Document Number SI5395A-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018	Sheet 33 of 44	1

[illegible]

100 mA Adjustable Voltage Regulator



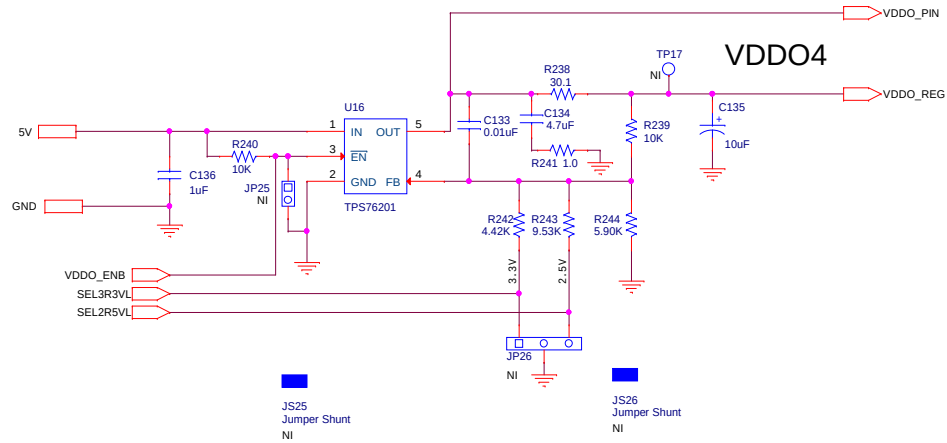
 400 W Cesar Chavez Austin, TX 78701		
Title		
VDD_REG_TPS76201		
Size	Document Number	Rev
B	SI5395A-A-EB	1.1
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100 mA Adjustable Voltage Regulator

The schematic diagram illustrates a 100 mA Adjustable Voltage Regulator circuit. The circuit is powered by a 5V input and a GND connection. The input is connected to the IN pin of the TPS76201 IC (U15) through a 10k resistor (R233). A 1uF capacitor (C132) is connected to the input. The EN pin of the IC is connected to the VDDO_ENB signal. The FB pin is connected to the output of the IC through a 1.0k resistor (R234). The output of the IC is connected to a 10k resistor (R232) and a 10uF capacitor (C131). The output voltage is adjustable via a potentiometer (TP16) connected to the feedback pin (FB). The output voltage is labeled VDDO3 and VDDO_REG. The circuit also includes a 3.3V and 2.5V output section with resistors R235 (4.42k), R236 (9.53k), and R237 (5.90k). The output is connected to a jumper shunt (JS24) and a 10uF capacitor (C131).

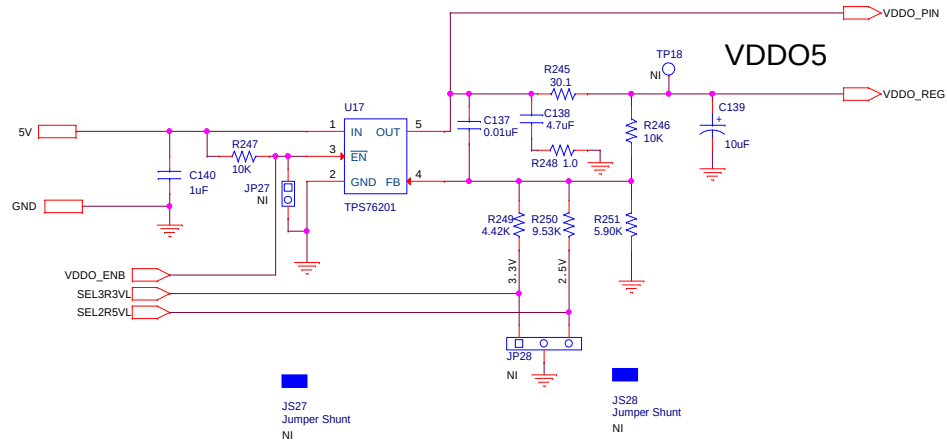
400 W Cesar Chavez Austin, TX 78701	
Title VDD_REG_TPS76201	
Size B	Document Number SI5395A-A-EB
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100 mA Adjustable Voltage Regulator



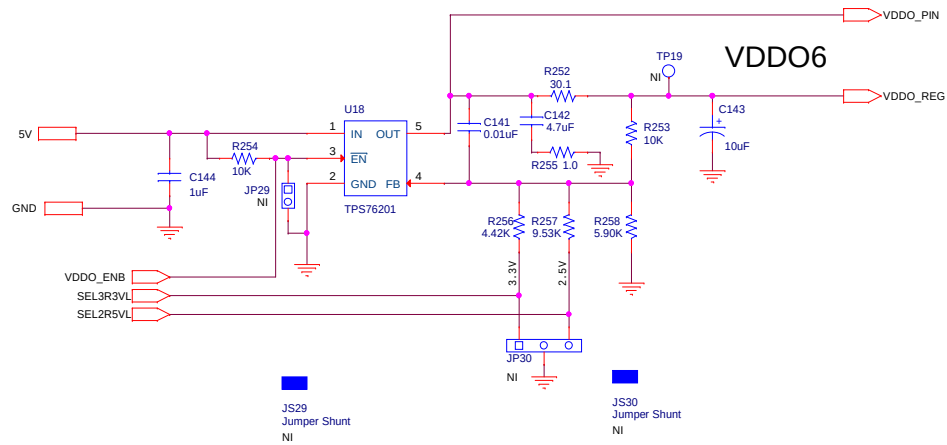
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Title		
VDD_REG_TPS76201		
Size	Document Number	Rev
B	SI5395A-A-EB	1.1
Date:	Tuesday, May 29, 2018	Sheet 37 of 44

100 mA Adjustable Voltage Regulator



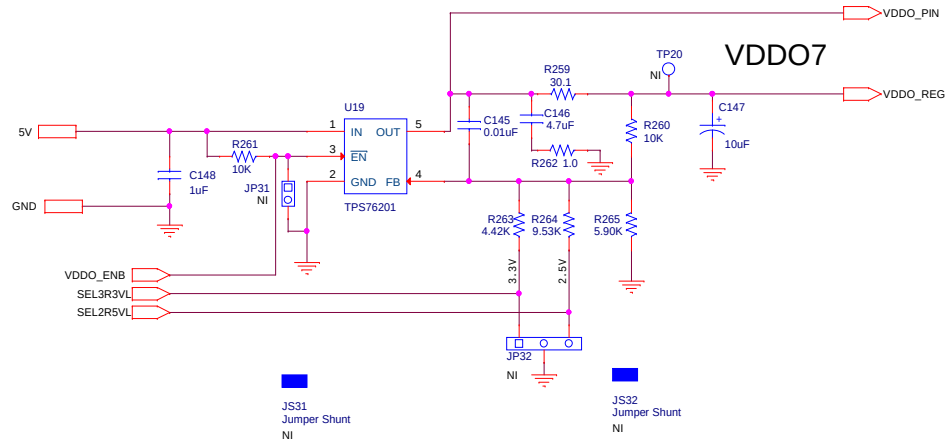
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Title			
VDD_REG_TPS76201			
Size	Document Number		Rev
B	SI5395A-A-EB		1.1
Date:	Tuesday, May 29, 2018	Sheet	38 of 44

100 mA Adjustable Voltage Regulator



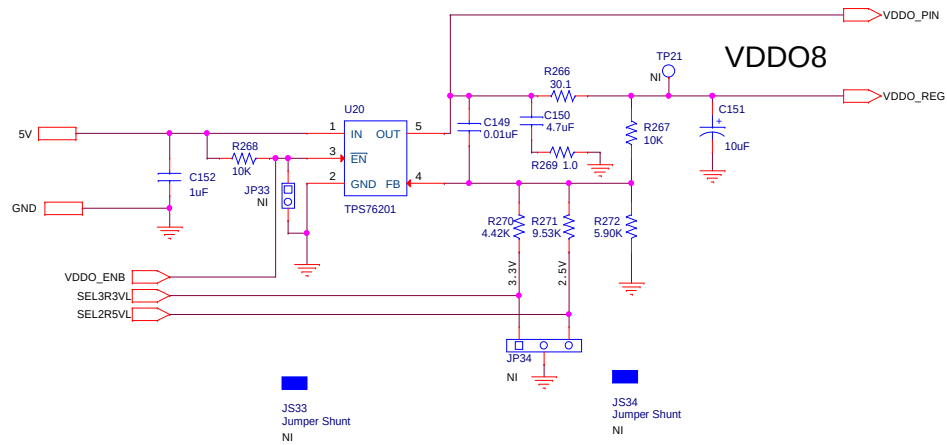
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Title		VDD_REG_TPS76201	
Size	Document Number	Rev	
B	SI5395A-A-EB	1.1	
Date:	Tuesday, May 29, 2018	Sheet	39 of 44

100 mA Adjustable Voltage Regulator



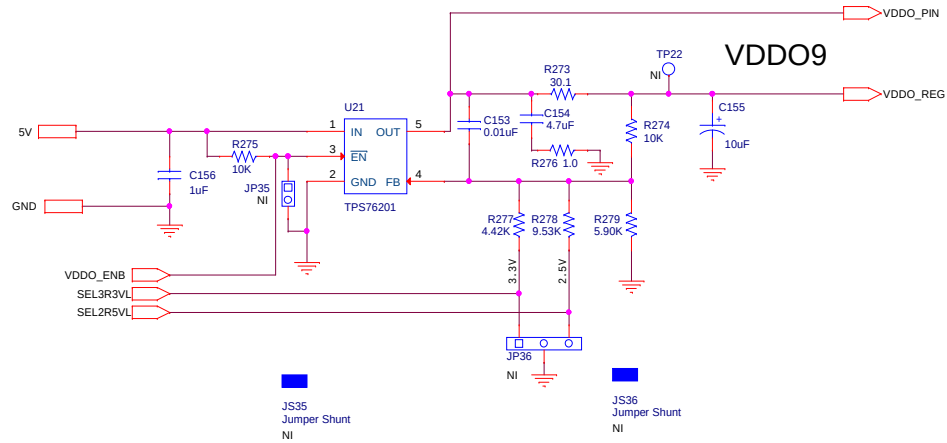
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Title		
VDD_REG_TPS76201		
Size	Document Number	Rev
B	SI5395A-A-EB	1.1
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100 mA Adjustable Voltage Regulator



 400 W Cesar Chavez Austin, TX 78701		
Title		
VDD_REG_TPS76201		
Size	Document Number	Rev
B	SI5395A-A-EB	1.1
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100 mA Adjustable Voltage Regulator



 400 W Cesar Chavez Austin, TX 78701	
Title	
VDD_REG_TPS76201	
Size	Document Number
B	SI5395A-A-EB
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VOLTAGE MEASUREMENT MULTIPLEXING

